

REMARKS/ARGUMENTS

Favorable consideration of this application, as presently amended, is respectfully requested.

Claims 11-24 are pending in this application. Claims 1-10 were previously canceled without prejudice or disclaimer.

The outstanding Office Action presents a rejection of Claims 11-13 and 15-17 under 35 U.S.C. §103(a) as being unpatentable over Walker et al. (U.S. Published Patent Application No. 2002/0024628, Walker) in view of Huang et al. (U.S. Published Patent Application No. 2002/0071085, Huang) in further view of Ohno (U.S. Patent No. 4,600,273), a rejection of Claim 14 under 35 U.S.C. §103(a) as being unpatentable over Walker in view of Huang and Ohno in further view of Chang et al. (EP 827190 A2, Chang), a rejection of Claims 18-21, 23, and 24 over Huang in view of Ohno, and a rejection of Claim 22 under 35 U.S.C. §103(a) as being unpatentable over Huang in view of Ohno in further view of Chang.

Turning to the outstanding rejection of Claims 11-13 and 15-17 under 35 U.S.C. §103(a) as being unpatentable over Walker in view of Huang and in further view of Ohno, page 5, item 12, of the outstanding Action admits that the primary reference to Walker fails to teach the Claim 11 forming of means for external connection on each first substrate (having the claimed back electrode) opposite the contact pads of the second substrate, overlapping of the contact pads by an opposite portion of the means for external connection, conducting elements disposed in the seal configured to provide electrical continuity between each overlapped contact pad and the corresponding external connection, or that a zone of each first substrate comprising the means for external connection is overhanging with respect to the second substrate to which it is assembled.

Accordingly, the absolute minimum redesign of Walker must compensate for all these deficiencies as well as the deficiency noted in the response filed June 06, 2007, as to the

showing of FIG. 36 of Walker that teaches pads 405 on the outcrop portion of the semiconductor substrate shown therein that are taught to be used themselves to make external connections. See paragraph [0120] of Walker teaching that land pads 405 are provided on the semiconductor substrate projecting portion to “permit electrical communication between the circuitry within micro liquid crystal display 400 and devices external to micro liquid crystal display 400 such as a device driver on a driver board.” Further note the elimination of this projecting outcrop portion of the semiconductor substrate will also remove the radio chips at locations 503 (contrary to the assertion in item 15, the contact pads are labeled 405 and the locations for radio chips 500 are labeled 503, see paragraphs [0120- 0122]).

Also as noted in the paragraph bridging pages 9-10 of the above-noted last response, the sealing frame 150 with non conductive spacers 152 of Walker is taught and illustrated to not only be well removed from at least the above-noted projecting outcrop portion of the semiconductor substrate, it is also taught that still another side of the sealing frame 150 must be well removed from the cross-over material 170 that provides voltage from wafer 115 to conductor 130 of substrate 100. See paragraph [0072] and note the spacing provided in both FIGS. 35 and 36 for 170. The assertion of replacement teachings for the contact pads 405 do not apply to removing the radio chips or the cross-over material 170. Moreover, even if some rational basis for the elimination of all of these elements based on prior art teachings had been included, the undisputable result of such modifications is a major redesign of the method and device of Walker where the resulting device cannot operate as intended by Walker.

Thus, the assertion at the middle of item 2 at page 2 of the outstanding Action “that neither a complete redesign nor a change in operating principle would be required” is clearly based upon a subjective conclusion not supported by substantial evidence.

As noted in the last response relative to *In re Kahn*, 441 F.3d 977, 988, 78 USPQ 2d 1329, (Fed. Cir. 2006) “rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” Further note that reliance on completely subjective conclusions is contrary to established case law requiring the PTO to present factual evidence, not subjective conclusions. See *In re Zurko*, 258 F.3d 1379, 1386, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001) (“With respect to core factual findings in a determination of patentability, however, the [PTO] . . . must point to some concrete evidence in the record in support of these findings.”); *In re Lee*, 277 F.3d at 1343-44, 61 USPQ2d at 1434 (This factual question . . . material to patentability [cannot] be resolved on subjective belief and unknown authority.”); and *In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967) (“The Patent Office has the initial duty of supplying the factual basis for its rejection.”).

Not only is no evidence offered to support the mere conclusion that a complete redesign is not needed, none is presented to support the hypothesis that the artisan would have eliminated portions of all of the substrates shown by each of Walker, Huang, and Ohno that extend away from the seals of these references because the PTO concludes, without any evidence at all, much less the required substantial evidence, that the artisan would find them to be unnecessary.

However, the teachings of Huang require metal lines 86 that still extend on the silicon substrate well away from the frame seal 92 that will be separately coupled to the conductive ITO traces 94 on the glass substrate. As noted in paragraph [0049] of Huang, this is done to insure that these added ITO traces 94 do not disturb the transparency of glass substrate 88 “in any way so that the flat panel display module 100, during its assembly, can be optically aligned from the side of the glass substrate by using a conventional alignment apparatus of

CCD.” Not only would the suggested modification of the outstanding Action be a prohibited complete redesign of Walker, it would require that the paragraph [0049] teachings of Huang to be ignored.

In this last regard, *In re Kotzab* 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) notes that “[reference] statements cannot be viewed in the abstract. Rather they must be considered in the context of the teaching of the entire reference.” This is not new law, note *In re Gordon*, 221 USPQ 1125, 1127 (Fed. Cir. 1984) requiring "a fair reading of the prior art reference as a whole," and *In re Wesslau*, 147 USPQ 391, 393 (CCPA 1965) noting that "it is impermissible within the framework of §103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art." It is exactly this prohibited selective picking and choosing that the outstanding Action relies on.

In this regard, it is clearly not logical to first say that the artisan will follow the teachings of Huang that include the paragraph [0049] requirement for the connection between the substrates to be apart from the seal 92, and then to state that the artisan would have been led to follow the teachings of Ohno as to conductive elements in the seal itself which would require the Huang traces to extend over seal 92 in direct contradiction to the teachings of paragraph [0049]. It is well established that any proposed modification to a reference must be based upon logic and sound scientific reasoning. See *Ex parte Levengood*, 28 USPQ2d 1300, 1301 (BPAI 1993). Clearly, no such logic and sound scientific reasoning are presented in the outstanding Action.

Accordingly, it is respectfully submitted that the rejection of independent Claim 11 under 35 U.S.C. §103(a) as being unpatentable over Walker in view of Huang and in further

view of Ohno is clearly improper for all the above-noted reasons and that this rejection should, therefore, be withdrawn.

In addition, the withdrawal of the rejection of Claims 12, 13, and 15-17 under 35 U.S.C. §103(a) as being unpatentable over Walker in view of Huang and Ohno is also respectfully submitted to be in order as these claims all depend from Claim 11 and, thus, incorporate all the limitations of Claim 11 that are noted above to patentably define over the teachings and fair suggestions of Walker, Huang, and/or Ohno considered alone or together in any proper combination. Therefore, withdrawal of the rejection of Claims 12, 13, and 15-17 under 35 U.S.C. §103(a) as being unpatentable over Walker in view of Huang and Ohno is also respectfully requested.

In addition, each of Claims 12, 13, and 15-17 add features to those of independent base Claim 11 that are also not taught or reasonably suggested by Walker, Huang, and/or Ohno considered alone or together in any proper combination. Therefore, withdrawal of the rejection of Claims 12, 13, and 15-17 under 35 U.S.C. §103(a) as being unpatentable over Walker in view of Huang and Ohno is respectfully submitted to be in order for this reason as well.

With regard to the rejection of Claim 14 under 35 U.S.C. §103(a) as being unpatentable over Walker in view of Huang and Ohno in further view of Chang, it is noted that Claim 14 depends from Claim 11 and thus incorporates all its limitations. It is further noted that Chang cures none of the above-noted deficiencies of Walker, Huang, and/or Ohno considered alone or together in any proper combination. Therefore, withdrawal of the rejection of Claim 14 under 35 U.S.C. §103(a) as being unpatentable over Walker in view of Huang and Ohno in further view of Chang is respectfully submitted to also be in order. In addition, Claim 14 adds features to those of independent base Claim 11 that are further not taught or reasonably suggested by Walker, Huang, Ohno and/or Chang considered alone or

together in any proper combination. Therefore, withdrawal of the rejection of Claim 14 under 35 U.S.C. §103(a) as being unpatentable over Walker in view of Huang, Ohno, and Chang is also respectfully submitted to be in order for this reason as well.

Relative to the rejection of Claims 18-21, 23, and 24 under 35 U.S.C. §103(a) as being unpatentable over Huang in view of Ohno, it is once again noted that independent Claims 18 and 24 require that the contact pads on the second silicon substrate are to be “in close proximity to and connected with the active matrix circuit” and that “the silicon substrate includes exterior sides that are all closely adjacent to corresponding exterior sides of the sealing frame.” These limitations require that there is no part of the second silicon substrate that extends any significant distance from the contour of the sealing frame.

Neither Huang nor Ohno teach or suggest any restriction on the relatively long lead lengths provided on each of their illustrated substrates (none of which are silicon in the device taught by Ohno), much less any teaching or suggestion that “the silicon substrate includes exterior sides that are all closely adjacent to corresponding exterior sides of the sealing frame.”

As noted above, the teachings of Huang require metal lines 86 that extend on the silicon substrate well away from the frame seal 92 that will be coupled to the conductive ITO traces 94 on the glass substrate also well away from the frame seal 92. As noted in paragraph [0049] of Huang, this is done to insure that these added ITO traces 94 do not disturb the transparency of glass substrate 88 “in any way so that the flat panel display module 100, during its assembly, can be optically aligned from the side of the glass substrate by using a conventional alignment apparatus of CCD.” The suggested modification of item 32 of the outstanding Action that the artisan would have been motivated to cut the substrates to eliminate excess material is thus not logical, not based on sound scientific reasoning, and has no rational underpinnings. This is because the substrate portion of Huang carrying metal

lines 86 that extend on the silicon substrate well away from the frame seal 92 that will be coupled to the conductive ITO traces 94 on the glass substrate also well away from the frame seal 92 cannot be dismissed as excess material. Once again, the paragraph [0049] teachings of Huang cannot be ignored and prohibit the traces 94 from extending into the area over the seal 92.

Accordingly, the mere assertion of providing a reliable connection to replace an existing reliable connection at the cost of violating the teachings of paragraph [0049] of Huang is not sufficient to establish a valid *prima facie* case of obviousness. Therefore, the withdrawal of the rejection of independent Claims 18 and 24 under 35 U.S.C. §103(a) as being unpatentable over Huang in view of Ohno is also respectfully submitted to be in order.

In addition the withdrawal of the rejection of dependent Claims 19-21 and 23 over Huang in view of Ohno under 35 U.S.C. §103(a) is also respectfully submitted to be in order as these claims all depend from Claim 18 and, thus, incorporate all the limitations of Claim 18 that are noted above to patentably define over the teachings and fair suggestions found in Huang, and/or Ohno considered alone or together in any proper combination. Therefore, withdrawal of the rejection of Claims 19-21 and 23 under 35 U.S.C. §103(a) as being unpatentable over Huang in view of Ohno is also respectfully requested.

Moreover, Claims 19-21 and 23 add features to independent Claim 18 that are further not taught or reasonably suggested by Huang, and/or Ohno considered alone or together in any proper combination. Therefore, withdrawal of the rejection of Claims 19-21 and 23 under 35 U.S.C. §103(a) as being unpatentable over Huang in view of Ohno is respectfully submitted to be in order for this reason as well.

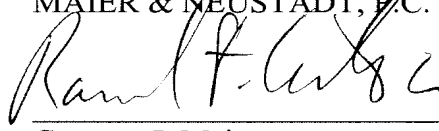
The rejection of Claim 22 under 35 U.S.C. §103(a) as being unpatentable over Huang in view of Ohno in further view of Chang is traversed because Claim 22 depends from Claim 18 and incorporates all its limitations and because Chang cures none of the above-noted

deficiencies of Huang, and/or Ohno considered alone or together in any proper combination. Therefore, withdrawal of this rejection of Claim 22 is also respectfully submitted to be in order. In addition, Claim 22 adds features to those of independent Claim 18 that are not taught or reasonably suggested by any of Huang, Ohno and/or Chang considered alone or together in any proper combination. Therefore, withdrawal of this rejection of Claim 22 is respectfully submitted to be in order for this reason as well.

As no other issues are believed to remain outstanding relative to this application, it is believed to be clear that this application is in condition for formal allowance and an early and favorable action to this effect is, therefore, respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Gregory J. Maier
Attorney of Record
Registration No. 25,599

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)

Raymond F. Cardillo, Jr.
Registration No. 40,440